

TRAITÉ DE COOPÉRATION EN MATIÈRE DE BREVETS

PCT

RAPPORT PRÉLIMINAIRE INTERNATIONAL SUR LA BREVETABILITÉ (chapitre I du Traité de coopération en matière de brevets)

(règle 44bis du PCT)

Référence du dossier du déposant ou du mandataire S6123 FSMNS	POUR SUITE À DONNER Voir le point 4 ci-dessous	
Demande internationale no. PCT/FR2004/050105	Date du dépôt international (<i>jour/mois/année</i>) 12 March 2004 (12.03.2004)	Date de priorité (<i>jour/mois/année</i>) 02 April 2003 (02.04.2003)
Classification internationale des brevets (8 ^e édition, sauf indication d'une #dition ant#rieure) Voir les informations pertinentes dans le formulaire PCT/ISA/237		
Déposant L'AIR LIQUIDE SOCIETE ANONYME A DIRECTOIRE ET CONSEIL DE SURVEILLANCE POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE		

1. Le présent rapport préliminaire international sur la brevetabilité (chapitre I) est établi par le Bureau international au nom de l'administration chargée de la recherche internationale selon la règle 44bis.1.a).

2. Ce RAPPORT comprend un total de 7 feuilles, y compris la présente feuille de couverture.

Dans les feuilles jointes, toute référence à l'opinion écrite de l'administration chargée de la recherche internationale doit être entendue, à la place, comme une référence au rapport préliminaire international sur la brevetabilité (chapitre I).

3. Le présent rapport contient des indications relatives aux points suivants :

- | | | |
|-------------------------------------|---------------|---|
| <input checked="" type="checkbox"/> | Cadre n° I | Base de l'opinion |
| <input type="checkbox"/> | Cadre n° II | Priorité |
| <input type="checkbox"/> | Cadre n° III | Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle |
| <input type="checkbox"/> | Cadre n° IV | Absence d'unité de l'invention |
| <input checked="" type="checkbox"/> | Cadre n° V | Déclaration motivée selon l'article 35.2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration |
| <input type="checkbox"/> | Cadre n° VI | Certains documents cités |
| <input type="checkbox"/> | Cadre n° VII | Certaines irrégularités relevées dans la demande internationale |
| <input checked="" type="checkbox"/> | Cadre n° VIII | Certaines observations relatives à la demande internationale |

4. Le Bureau international communiquera le présent rapport aux offices désignés conformément aux règles 44bis.3.c) et 93bis.1 mais pas avant l'expiration du délai de 30 mois à compter de la date de priorité (règle 44bis.2), sauf si le déposant a présenté une requête expresse à cet égard en vertu de l'article 23.2).

	Date d'établissement du présent rapport 02 March 2006 (02.03.2006)
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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

Translation

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		Date of mailing (day/month/year)
Applicant's or agent's file reference S6123 FSMNS		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/FR2004/050105	International filing date (day/month/year) 12.03.2004	Priority date (day/month/year) 02.04.2003
International Patent Classification (IPC) or both national classification and IPC		
Applicant L'AIR LIQUIDE SOCIETE ANONYME A DIRECTOIRE ET CONSEIL DE SURVEILLANCE POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES		

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/050105

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-21	YES
	Claims	-	NO
Inventive step (IS)	Claims	-	YES
	Claims	1-21	NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims	-	NO
2. Citations and explanations:			
<p>1. Reference is made to the following documents:</p> <p>D1: EP-A 0 628 778 (AIR LIQUIDE) 14 December 1994</p> <p>D2: US-A-6 128 921 (GUILLARD ALAIN ET AL) 10 October 2000</p> <p>D3: US 2003/033832 A1 (MASSIMO GIOVANNI ET AL) 20 February 2003</p> <p>D4: US-B1-6 345 517 (JAHNKE FREDERICK C) 12 February 2002</p>			
<p>2. The subject matter of claim 1 is novel but does not involve an inventive step (PCT Article 33(3)), for the following reasons:</p> <p>Document D1, which is considered to be the prior art closest to the subject matter of claim 1, describes (the references between parentheses apply to figure 3 of this document) a similar method for the provision of gas under pressure, by vaporization of a cryogenic liquid from a cryogenic separation device, this method furthermore including the steps a) to f) as claimed.</p>			

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

Therefore, the subject matter of claim 1 differs from this known method in that at least one other cryogenic separation device is connected in a network to the cryogenic separation device, sharing a single common store of liquid.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

The problem that the present invention is intended to solve can thus be considered to be that of providing large quantities of gas under pressure while reducing investment costs.

A method for the provision of large quantities of gas under pressure comprising two cryogenic separation devices which send liquid to a common store has, however, already been used for the same purpose in a similar method, see D2, figure 4 (or D3). It would therefore be obvious to the person skilled in the art to apply these features with corresponding effect to the method according to document D1, thereby arriving at a method according to claim 1.

The solution, as proposed in claim 1 of the present application, is therefore not considered to be inventive (PCT Article 33(3)).

3. In so far as **claim 12** relating to a device for the provision of gas under pressure can be understood

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

(cf. Box VIII), said claim only defines features of methods of claim 1 by device features. The arguments set forth above apply *mutatis mutandis* to the subject matter of claim 12 and the subject matter of claim 12 is therefore not inventive either (PCT Article 33(3)).

4. Claims 2 to 11 and 13 to 21 contain features which are partially known from documents D1 and D4 (**claims 2 to 7 and 13 to 21**) or which relate simply to measures for controlling a cryogenic separation device well known to the person skilled in the art (**claims 8 to 11**). Therefore, the subject matters of these claims do not contain any additional features which, in combination with the subject matter of any one of the claims on which they depend, would involve an inventive step.

WRITTEN OPINION OF THE
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Box No. VIII Certain observations on the International application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

5. **Claim 11** is not supported by the description, as required by PCT Article 6, as its scope is broader than that justified by the description and the drawings, for the following reasons:
According to the description (page 6, line 10), the gas under pressure is provided by an installation comprising at least two cryogenic separation devices whereas said claim also includes the option of a single device.
Therefore, for the assessment of novelty and of inventive step of this claim, it is understood that the installation comprises at least two cryogenic separation devices.